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Energy and Global Security: Towards a Cooperative Approach

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Thank you for this warm welcome. And thanks to the hosts and organizers for bringing us together to discuss the value of cooperation in promoting our common security.

The occasion of this gathering brings to my mind a famous British political cartoon from the 1930's that showed the United States and the countries of Europe together in a small boat. The wealthy nations had gathered in the front of the boat, and the poor nations were gathered at the back of the boat – where there was a large leak.

As the boat was taking on water, one of the wealthy nations turned to another and said: "thank goodness the leak is not in our end."

But the nations of the world discovered in the Great Depression of the 1930's that – they were "all in the same boat." And that painful lesson needs to be relearned and re-applied today.

Today, our chance of achieving a peaceful and prosperous future depends upon realizing that – in a very important sense – the world is one boat, and we are all passengers. If that boat starts taking on water, it doesn't matter whose end of the boat you're in. We can't separate our fate from the fate of others, and we invite catastrophe if we attempt to go it alone. This axiom is true whether one is speaking of country-specific energy security or more recognized global security dangers.

I want to talk this evening about how – in this increasingly interdependent world – we must rely on each other for security against the most prominent challenges of this century: the threat of nuclear terrorism; the threat of climate change; and the threat of energy supply interruptions or price spikes that can cripple our linked economies.

Energy Security

Let me start with energy security.

Cooperation on energy security is perhaps the most counter-intuitive of the three areas of cooperation I've mentioned, and may require the biggest change in national behavior.

Energy, of course, is the lifeblood of our economies. Affordable, available energy is at the heart of our competitiveness and our standard of living. It is essential to our ability to fulfill the aspirational goals of our society. Next to water, energy is our most vital commodity – more likely to provoke rivalrous behavior than cooperation among nations.

In addition, energy – certainly as far as fossil fuels go – is not like scientific knowledge or high tech industry. You can't – by effort or intelligence – build an indigenous supply of it. Either it has been baked into the earth under your feet, or it hasn't. In most cases, it hasn't – at least not in adequate quantities.

This combination of factors – the enormous importance of energy and the fact that the large reserves are concentrated in relatively few hands – makes the energy market more volatile than other commodities – and makes fluctuations more damaging.

In the United States, to use just one example, every significant spike in the price of oil over the last thirty years has caused a recession. Altogether, these disruptions have cost the US economy over \$7 trillion.

That would explain why – for the last thirty years, US politicians have periodically advanced fanciful policies and programs under the banner of “energy independence.” The concept is understandable. Ordinarily, you try not to rely on other countries for things that are essential to your security.

But in the case of the US, its energy economy is too large, its indigenous resources too small for energy independence ever to have been a realistic goal, and it is no more so today.

The same is obviously true for Europe and much of the industrialized world. Serious energy thinkers have known this for a long time. But what is different today is that the growth and transformation of the global economy have woven a web that has bound the economic fate of all nations more tightly together – making energy disruptions affecting a few a concern for all. Increasingly, we have built a world of economic interdependence. The “bad news” in this is that our shared vulnerabilities to supply disruption or price shocks have dramatically increased. The “good news” in this is that nations with significantly different strategic interests and histories have recognized their common dangers and have begun to work together as never before. Witness the cooperative actions of China, Russia, the Euro-3, and the US in an attempt to resolve the

Iran crisis. These disparate states are not always rowing the boat together, but they now have begun to point the boat in the same direction. Disruption of the world's economic order in the event this crisis were to worsen would damage the vital interest of each nation and all of these nations collectively. Yes, their cooperative effort is focused on the danger of a nuclear-armed Iran. But the shared interest that is at the root of the cooperative effort is the preservation of the operation of the global economy and energy flows from Iran and its neighbors.

There are, of course, long established models of cooperation in energy matters – particularly ones affecting the operation of the global markets in oil and petroleum products. Yet these cooperative efforts have sorted nations into separate boats – one for producers (OPEC) and one for consumer states of the developed world (IEA). Consumer states of the developing world had no boat, and until recently, no paddle.

The International Energy Agency was founded thirty-four years ago on the premise that the oil-consuming nations of the developed world were all in the same boat: that they all shared the same fate, and that they all should cooperate to improve their fortunes. By joining together, its members made it clear that they understood their shared interests. And they have enjoyed success in limiting the consequences of supply interruptions and price shocks.

But today, the IEA's OECD membership is too narrowly based to continue its effectiveness. And as newly elected Executive Director Nobuo Tanaka has observed, more will be required "to adopt to changing market realities" and to meet energy balances in the context of sustainable development.

The IEA was created at a time when the United States, Europe, and Japan consumed far more energy than countries in the developing world. Today, that equation is being reversed. Countries like India and China are consuming a rising share of the world's energy. China alone is on pace to import more oil than the entire OECD combined between 2015 and 2030. I believe the OECD needs to work systematically with China to maintain its effectiveness. China needs to be brought into the IEA boat. India, too, as a country with rising energy demands, needs to be part of this expanding network of cooperation.

Strengthening the coalition of energy consumers is especially important since energy producers are becoming fewer and more powerful. Today, three countries – Russia, Qatar and Iran – have over 60% of the world's gas reserves. Six countries, five of them in the Middle East, hold nearly 70% of the world's oil reserves.

The case for cooperation among energy consumer countries is fairly straightforward. But I would submit that energy producers also have an interest in cooperation with consumer states.

Russian Minister of Foreign Affairs Sergey Lavrov recently wrote: "Energy dependence is reciprocal...."

A few months ago, a Russian government spokesperson made the same point even sharper: "Russia is as interested in supplying Europe as Europe is in receiving gas from us. We are mutually interdependent and that interdependence is a pillar of energy security." (Emphasis added.)

An anxious Europe waits to see if Russia will match these words with market deeds.

There are two powerful and obvious reasons for Russia to cooperate with its consumers.

First, you don't want to economically harm your customer. High energy prices can cause economic slowdowns, which in turn, reduce the demand for energy or drive consumers to seek alternative suppliers or alternative forms of energy supply. Sellers always have a financial interest in the economic health of their customers. A stable supply of energy at steady prices contributes to economic health for all.

A second obvious reason for cooperation relates to price volatility. Just as a high price can hurt the economies of consumer nations, a low price can hurt the economies of producer nations. Both sides have an interest in price stability.

But how might Russia and Europe build greater trust into the supply relationship? Words alone will not do it – however sincere. Russia and Europe need to develop "habits of cooperation." And I suggest one way of institutionalizing those habits is to find a way to bring Russia into a cooperative relationship with the IEA. This won't be easy, but it may be the most important single step the European-based IEA participant nations could take to reduce their collective vulnerability to Russian supply disruptions or price volatility. It also may be the single most important step Russia could take to build trust with its customers.

Climate Change

Next, a word about climate change.

Of course, climate change is an enormous complication in the energy equation. It is no longer enough to work for the stability of price and supply. We also have a global obligation to reduce carbon emissions and work together to promote a stable climate.

The best estimates say that global demand for energy will rise 50% over the next 25 years and fossil fuels will continue to dominate the world's energy supply. This growing energy use will bring with it growing carbon emissions, which in turn, will heat the planet, raise sea levels, threaten agriculture, and jar fragile ecosystems.

It's harder to find a clearer example of a global problem. Carbon dioxide emitted anywhere warms the planet everywhere. When the polar ice caps start to melt, the rising

tion won't discriminate between countries that were early to adopt progressive energy policies, countries who adopted them late, and countries who didn't adopt them at all. It will impact every country, most adversely.

There is now a general global understanding that all nations will have to cooperate to address this challenge. That means greater energy efficiency and greater use of non-carbon based energy sources. The US has been slow to join in, but there is a rising political consensus in the US that the US must do more and do it urgently.

And there is another, more specific argument for international cooperation in the fight against climate change – one that has a special security dimension.

If we're serious about global warming, we're going to have to be serious about developing non-fossil fuel energy sources. The scale of this problem is such that we are also going to have to be more serious about nuclear power. And if we're more serious about nuclear power, we're going to have to deal more effectively with dangers associated with nuclear technologies.

Already, the threat of climate change and volatility in the global energy markets are leading more countries to acquire or consider acquiring domestic nuclear energy programs.

Today, 31 countries operate large nuclear-power reactors. Since 2005 at least 15 more governments have said they want one too. (Economist, 8/25/07)

Of course, these countries say they do not want nuclear weapons, but a number have said they are reluctant to rely on international fuel supplies and want to develop their own indigenous fuel production and fuel cycle capabilities. Iran is but the most recent and most troubling example. There are and likely will be others. As everybody in this room knows, once countries have enrichment capacity, they can use the same process to enrich uranium to four percent, which is what you need to make electricity, or to 80 percent plus, which is what can be used to build a nuclear weapon.

For this reason, more nuclear power will mean more capacity for producing weapons-grade material, which will mean more potential suppliers for terrorists intent on gaining access to the ingredients to make nuclear weapons – *unless* we cooperate to give states a secure way to acquire nuclear power without acquiring the ability to make nuclear weapons.

A number of people at this conference are working on this problem and are attempting to chart that pathway to a more secure nuclear future. It is extremely important that we succeed.

Nuclear Security

As you heard in my introduction, I speak to you today as President of the Nuclear Threat Initiative, a non-governmental organization, co-chaired by former U.S. Senator Sam Nunn and CNN founder Ted Turner. Our mission is to help reduce toward zero the threat from nuclear, biological and chemical weapons.

We believe that the greatest security threat today – not just for the United States, or for the West, but for the world – is the possibility that a terrorist group could acquire a nuclear weapon and set it off in a major city. We have devoted many of the resources of our organization towards countering this threat – promoting efforts to find jobs for former weapons workers, to reduce stockpiles, to destroy weapons, and secure nuclear materials wherever they are in the world, to make it as hard as possible for terrorists to acquire the materials they need to make a nuclear weapon.

One year ago, Senator Nunn went to the IAEA in Vienna and announced a plan to contribute \$50 million to the International Atomic Energy Agency to help create a low-enriched uranium stockpile to be owned and managed by the IAEA. The stockpile would be available as a last resort fuel reserve for nations that have made the choice to develop nuclear energy and rely on international fuel supply -- rather than building indigenous enrichment facilities.

We envision a fuel reserve of sufficient size to give current and prospective customers confidence that they will be able to obtain nuclear fuel in the event their fuel supplies are interrupted for political reasons. Of course, the establishment of an international fuel reserve would be a clear illustration of global cooperation for global benefit.

The fuel reserve is just one part of the puzzle. It must be effectively linked to other supplier initiatives, such as Russia's proposed multi-national fuel centers and the six major supplier nations' proposal for mutually re-enforcing supply commitments. Japan, Germany and the UK have also suggested useful refinement on these arrangements. There is yet a long way to go before a truly reliable and trusted structure can be put in place. But the path from here to there can be traveled only by a sustained attempt by all countries involved to understand their common interests and cooperate on that basis. As I have noted, the experts in this audience have much to contribute to this effort.

Of course, building a fuel assurance system sufficient to stem the proliferation of inherently dangerous fuel cycle facilities is a relatively long-term project. In the short term, there are other initiatives which require broad based international cooperation to counter the threat of nuclear terrorism.

The most effective, least expensive way to prevent nuclear terrorism is to secure nuclear weapons and materials at the source. Supplies of highly enriched uranium and plutonium, the necessary materials to make a nuclear weapon, are widely dispersed around the world. Since these materials are difficult to make, the most likely way a terrorist organization will get them is through illicit purchase or theft. Vulnerable nuclear

material anywhere is a threat to everyone, everywhere. Like most global problems, the defense against nuclear terrorism is dependent upon joint global action. We all have an overwhelming interest in ensuring that each state and facility with weapons-usable nuclear material has it well secured and accounted for, and all nuclear facilities and transportation are protected against theft and sabotage.

To meet the changing threat, there is also a need for efforts that focus on the facility operators with the first line responsibility for the security of their materials. One way NTI is working to improve nuclear material security is to facilitate the global sharing of best practices, including building a structure for the exchange of experiences, lessons learned, and new ideas at the “grass roots” facility-operations level. This sharing could assist facilities in responding to changes in threat assessment and in implementing new technologies or tools. Since best practices will be continually evolving, it will be important to put a process in place for continually updating and refreshing skills, concepts and thinking in this arena. In this way, the nuclear materials management community can collectively reduce the risk of a terrorist event that would threaten the viability of peaceful nuclear activities internationally.

As we can readily see and as we all know, there is much work to be done. This conference, over the next two days, will discuss an ambitious agenda of actions which require our collective and continued cooperation – and the sustained leadership from the people in this room.

Conclusion

As I conclude my remarks, let me be clear: I am not making the point that we face three distinct challenges – maintaining strong economies, promoting a stable climate, and preventing nuclear terror – and that it's vital that we cooperate on each one of these.

I am trying to make a larger point.

We don't need three separate justifications for working together. We just need one conceptual awakening to an interdependent world in which no state or region or coalition of only a few “willing” states can provide for their own security. We are and will be dependent on an already large, ever expanding community of nations to provide for our collective security. We are decidedly ALL in the same boat. And we will need all hands – East, West, North and South – to row the boat to safety.

The recognition of our mutual plight and our mutual dependence is particularly important when it comes to relations between the developed and developing world. As is obvious in press reports of current events, we need the help of the developing world to fight the terrorist threat – to pass on intelligence about training camps, suspicious travel, potential plots, etc., and to counter with progressive policies and actions the terrorist appeal to the desperate and discouraged elements of their society.

But we can't expect continued cooperation from the developing world by saying we are all at risk of terrorism, and then continue to act as if only they – and not we – are at risk from poverty and disease. It's very difficult to get people to address your priorities unless you're seen to be also addressing theirs. In short, we can't have cooperation on just isolated issues such as terrorism; we have to base it on a much broader agenda of shared interest and cooperative action.

Archimedes – who knew something about leverage – once boasted of the power of the lever: “Give me where to stand, and I will move the earth.” The leverage of international cooperation will do more than help us move the earth; it will help us *save* the earth and each other. Today, we know “where to stand.” We need to stand together. Only by doing so will we be able to advance our physical security and our energy and economic security, as well.